

Cemtop XD

Cementitious floor topping, internal, trafficable wearing surface (6-12 mm thickness)

USES

Cemtop XD is designed as an internal thin layer industrial wearing course for use in areas that are subjected to both foot and forklift traffic.

The product can be used for the reinstatement of existing floors or as a final wearing course on new concrete floors where specified floor tolerances have not been achieved or where, for speed of installation, the concrete floor has been left with a rough screed finish. It is suitable for use across a wide range of industrial environments such as warehouses, light to medium engineering operations, food processing plants, car parks etc.

It may be used either as a stand-alone system, or depending upon the end use of the floor, in conjunction with the Nitoflor and Durafloor range of resin based floor coatings.



ADVANTAGES

- Very fast application and rapid cure - minimises factory downtime
- Economic - more cost effective than equivalent resin based systems
- Dimensionally stable - can be installed in large jointless areas
- Self smoothing - minimal finishing required
- Durable - smooth dense surface, resistant to forklift truck traffic
- Water vapour permeable - allows installation on floors subject to rising damp
- One pack product, applied by pump - eliminates on-site batching and ensures consistency of mixed product

TECHNICAL SUPPORT

Parchem offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

STANDARDS COMPLIANCE

Cemtop XD complies with the requirements for a Class O surface, as defined in paragraph A8 (b) of Approved Document B, 'Fire', to the Building Regulations 1985.

BS 476: Part 6: 1989 'Method of Test for Fire Propagation for Products' - Fire Propagation Index, I=2.0.

BS 476: Part 7: 1987 'Surface Spread of Flame Test for Materials' - Class 1 Surface Spread of Flame.

DESCRIPTION

Cemtop XD cement based floor surfacing system consists of a blend of selected cements and hard wearing aggregates modified with polymers and flow agents. It is used in conjunction with Durafloor Level Prime, a water based styrene-acrylate copolymer primer.

It is supplied as a grey powder which requires only the addition of water to produce a self smoothing, free flowing material.

The product is designed for installation using a continuous mixer pump or mixing by hand.

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PARCHEM	CONCRETE REPAIR	FLOORING	JOINTING SYSTEMS	WATERPROOFING
TECHNICAL DATA SHEET	JANUARY 08			
www.parchem.com.au	7 Lucca Road, Wyong NSW 2259	Sales 1800 624 322	Technical 1800 812 864	ABN 80 069 961 968

DESIGN CRITERIA

Cemtop XD is designed for application at a minimum thickness of 6 mm. It can be applied onto a clean, sound and well prepared concrete floor which is free from loose material, oil, grease, paint etc and has either a minimum 25 MPa compressive strength or a surface tensile strength value in excess of 1.25 MPa. If the strength of the concrete floor is below these values please contact your local Parchem branch for advice.

Where thicknesses of Cemtop XD in excess of 12 mm are required it is recommended that Cemtop GP underlayment is used as a base layer, at a minimum thickness of 7 mm beneath the Cemtop XD.

When Cemtop XD is being used as a single layer, stand-alone system the concrete must be sufficiently dry to allow absorption of the primer. If the product is being overcoated with an impermeable topping, such as an epoxy screed, the relative humidity of the concrete floor must not be greater than 75% at the time of installation. The relative humidity must not be greater than 80% if a Nitoflor resin based coating is being applied.

New concrete should be at least 14 days old.

Please consult Parchem for advice on the suitability of other floor surfaces.

PROPERTIES

Compressive strength
at 28 days (40 mm cubes
cured at 25°C 65% RH): >27 MPa

Flexural strength at
28 days (rectangular
prisms cured at
25°C 65% RH): >7 MPa

C & CA accelerated
wear test at 28 days¹: Category Good Highest rating

BRE impact resistance
at 28 days (BS 8204:
part 1: 1987): Category A Highest rating

TRL slip resistance test Dry Wet

Rapra 4S rubber slider: Excellent Satisfactory

TRL rubber slider: Excellent Satisfactory

Minimum thickness: 6 mm

Maximum thickness: 12 mm

Traffic time (10°C to 25°C)

Foot traffic:	2 - 4 hours
Light traffic ² :	24 - 36 hours

¹ Refer to Concrete Society Technical Report No 34.

² Excessive loading should be avoided for 7 days after application.

CHEMICAL PROPERTIES

When cured, Cemtop XD has good resistance to water and oils. However, if continual contact with water is expected or if attack from organic solvents, organic or inorganic acids is likely, the surface should be protected by a suitable Nitoflor resin based floor coating. For specific information contact your local Parchem branch.

MAINTENANCE

If Cemtop XD has been overcoated with any of the Nitoflor range of resin floor coatings, cleaning should be in accordance with the recommendations stated in the relevant product data sheet.

Where Cemtop XD has not been overcoated it may be cleaned with proprietary rotary scrubbing machines. It should not be cleaned with strong acidic or alkaline based cleaning agents.

APPLICATION INSTRUCTIONS

The installation of Cemtop XD is a specialised activity. The product should be applied by a Parchem recommended contractor who has been fully trained in the use of the product, using equipment supplied or approved by Parchem. Although the preferred method of application is by the use of a continuous mixer pump, it may, in certain circumstances, particularly for floor areas less than 50 m², be more practical to mix and apply the product by hand.

APPLICATION

SINGLE LAYER SYSTEM - THICKNESSES UP TO 12 MM - CEMTOP XD

Thoroughly prepare the floor surface.

Prime the surface with Durafloor Level Prime (1:5 primer to clean water ratio by volume) and allow to dry (45 minutes approximately at 23°C).

Reprime the surface with Durafloor Level Prime (1:3 primer to clean water ratio by volume) and allow to dry (90 minutes approximately at 23°C).

Apply Cemtop XD to the required thickness onto the dry, primed surface.

For a final smooth finish, spike roll using the Cemtop spike roller.

DUAL LAYER SYSTEM - THICKNESSES OVER 12 MM - CEMTOP GP AND CEMTOP XD

Thoroughly prepare the floor surface.

Prime the surface with Durafloor Level Prime (1:5 primer to clean water ratio by volume) and allow to dry.

Reprime the surface with Durafloor Level Prime (1:3 primer to clean water ratio by volume) and allow to dry.

Apply Cemtop GP underlayment to the required thickness onto the dry, primed surface.

When hardened, prime underlayment material with Durafloor Level Prime (1:3 primer to clean water ratio by volume).

Apply 6 mm Cemtop XD to the primed underlayment.

If it is not planned to apply Cemtop XD on the same or the following day as Cemtop GP, please contact your local Parchem branch for advice.

The objective of priming is to seal the existing floor to prevent release of air which may otherwise rise to form bubbles and pin holes in the surface of the Cemtop XD product. Additionally it aids adhesion between the existing floor and Cemtop XD and also between Cemtop XD and the underlayment material.

MIXING

When mixing Cemtop XD by hand use 2.55 litres - 2.85 litres (Av. 2.70 litres) of cool clean drinking water per 15 kg bag.

LIMITATIONS

Concrete slabs onto which Cemtop XD and Cemtop GP are to be applied must have a surface temperature of at least 10°C during application. Protect from freezing for 48 hours after placement. For temperatures in excess of 25°C during application, contact Parchem Technical Services. To prevent rapid drying, protect from direct sunlight and/or drying winds during application and the initial curing period.

If the existing floor on to which any of the Cemtop products are applied moves or cracks, reflective cracking may occur.

ESTIMATING

SUPPLY

Cemtop XD:	15 kg bag
Cemtop GP:	18 kg bag
Durafloor Level Prime concentrate:	1, 5 and 20 litre containers

COVERAGE

Cemtop XD:	Each 15 kg bag yields approx. 8.85 litres when mixed with 2.70 litres of water. 8.85 litres will cover 1m ² at 8.85 mm thick
Cemtop GP:	Approx. 10.8 litres when mixed with 3.42 litres of water
Durafloor Level Prime concentrate:	10 - 20 m ² / litre / coat (after dilution with clean water as specified)

The coverage figures are theoretical - an additional amount, typically 10%, should be allowed for irregularities in the floor surface and wastage.

SPECIFICATION CLAUSE

Refer to Parchem website for detailed specification clauses. (www.parchem.com.au)

STORAGE

Bags of Cemtop XD and Cemtop GP should be stored on pallets in dry conditions. Under these conditions they will have a shelf life of 6 months.

Durafloor Level Prime has a shelf life of 18 months. Protect from frost and extreme heat.

USE WITH NITOFLOOR FC130

In areas that are subject to continuous water immersion or chemical attack from acids or organic solvents, Cemtop XD should be protected using one of the Nitoflor or Durafloor range of resin floor coatings.

NITOFLOOR FC130

Nitoflor FC130 is a water based, matt finish, pigmented epoxy floor coating, which is dustproof, easily cleaned and resistant to oils and liquids. Two coats are required.

The first coat of Nitoflor FC130 should be applied as soon as possible to the hardened Cemtop, typically within 2 - 6 hours of installation. The second coat should be applied as soon as the first coat has dried, typically after 6 - 18 hours.

OTHER RESIN TOPPINGS AND SCREEDS

Cemtop products can also be used in combination with the Durafloor and Nitoflor range of self smoothing epoxy toppings and trowel applied screeds. Please contact your local Parchem branch for further information and advice.

JOINTS

Expansion joints in the existing floor must be continued through the Cemtop products and filled to the required level with Nitoseal 280 or Thioflex 600. Cemtop products can be laid over construction joints or day joints. However, if these joints subsequently move reflective cracking may occur.

Parchem manufactures a wide range of products specifically designed for the specialist flooring industry. These include liquid-applied, chemically-resistant coatings, self-smoothing epoxy toppings and trowel-applied, highly abrasion-resistant screeds. Among them, are products suitable for use in the food and drinks industry, the pharmaceutical industry and in areas subjected to heavy industrial use. In addition, a wide range of complementary products is available. This includes joint sealants, waterstops, waterproofing membranes and specialised

ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

- concrete repair – cementitious and epoxy
- grouts and anchors – cementitious and epoxy
- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- waterstops – pvc and swellable
- joint sealants – building, civil and chemical resistant
- industrial flooring systems – cementitious and epoxy
- architectural coatings
- filler boards – swellable cork, bituminous and backing rod
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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